Rice County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors
6/14/2018

Using the most recent IMPLAN data available (2016) adjusted for 2018, 18 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Rice County economy.[1]

These 18 sectors have a total direct output of approximately **$280.6 million** and support **967 jobs** in Rice County. Running the model for all 18 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Rice County Economy						
Impact Type[2]	Employment	% Employment	Total Value Added[3]	Total Value Added % of Gross Regional Product[4]	Output[5]	Output % of Gross Regional Product
Direct Effect	966.9	16.18%	$60,748,110	15.56%	$280,566,776	71.85%
Indirect Effect	383.9	6.43%	$28,946,971	7.41%	$47,641,955	12.20%
Induced Effect	243.7	4.08%	$16,209,764	4.15%	$28,616,250	7.33%
Total Effect	1594.6	26.69%	$105,904,844	27.12%	$356,824,981	91.38%

As shown in the above table, agriculture, food, and food processing sectors support **1,595 jobs**, or **26.69%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **$356.8 million, roughly 91.38% of the economy.**

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 18 agriculture, food, and food processing sectors is approximately **$105.9 million**, or **27.12% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **27.12% of the total economy**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

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1 Article on building a contribution analysis in IMPLAN that avoids double counting:
http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

2 Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

3 Value added = labor income + indirect business taxes + other property type income.

4 GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

5 Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **452 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Rice County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	452.2	$69,257,060
Farm machinery and equipment manufacturing	153.5	$72,238,562
Grain farming	143.9	$61,258,233
Support activities for agriculture and forestry	141.5	$9,968,975
Wholesale trade	65.9	$16,469,868
Spice and extract manufacturing	51.5	$26,948,158
Truck transportation	44.2	$6,302,550
All other crop farming	39.6	$3,335,039
Animal production, except cattle and poultry and eggs	30.3	$3,499,522
Monetary authorities and depository credit intermediation	28.3	$5,060,136

The farm machinery and equipment manufacturing sector directly contributes approximately **$72.2 million** to the Rice County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Farm machinery and equipment manufacturing	153.5	$72,238,562
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	452.2	$69,257,060
Grain farming	143.9	$61,258,233
Spice and extract manufacturing	51.5	$26,948,158
Oilseed farming	22.0	$24,742,428
Wholesale trade	65.9	$16,469,868
Dry pasta, mixes, and dough manufacturing	22.7	$13,189,521
Support activities for agriculture and forestry	141.5	$9,968,975
Owner-occupied dwellings	0.0	$7,559,138
Truck transportation	44.2	$6,302,550

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Rice County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	**Total Employment**	**Total Output**
Oilseed farming	22.0	$24,742,428.24
Grain farming	143.9	$61,258,233.13
Greenhouse, nursery, and floriculture production	6.1	$354,963.25
All other crop farming	39.6	$3,335,038.96
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	452.2	$69,257,060.40
Dairy cattle and milk production	0.9	$182,036.23
Poultry and egg production	5.2	$2,229,542.36
Animal production, except cattle and poultry and eggs	30.3	$3,499,521.89
Commercial logging	1.2	$59,412.69
Commercial hunting and trapping	2.4	$49,022.14
Bread and bakery product, except frozen, manufacturing	5.5	$623,486.39
Frozen cakes and other pastries manufacturing	0.3	$50,954.22
Dry pasta, mixes, and dough manufacturing	22.7	$13,189,520.73
Spice and extract manufacturing	51.5	$26,948,157.85
Breweries	0.8	$408,946.28
Farm machinery and equipment manufacturing	153.5	$72,238,561.96
Veterinary services	13.8	$1,140,673.81
Landscape and horticultural services	14.9	$999,215.51

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Rice County, the retail sector was omitted.